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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,639	11/30/2004	Olav Bakka	PROT009-US	4566
24222	7590	12/02/2005	EXAMINER	
MAINE & ASMUS				NGUYEN, CHAU N
100 MAIN STREET				
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				ART UNIT
				PAPER NUMBER
				2831

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/516,639	BAKKA ET AL. <i>(PM)</i>
	Examiner	Art Unit
	Chau N. Nguyen	2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 October 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2 and 4-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2,4-11,18 and 19 is/are rejected.
- 7) Claim(s) 12-17 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 07 October 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/5/05 &amp; 10/7/05</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 1, 2, and 4-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 7, the recitation of "four of said at least four" is vague and indefinite since "at least four" includes "four". Consequently, the recitation of "four of said at least four single conductors are arranged in pairs and conduct electric power" is vague and indefinite since it is recited earlier in the claim that said at least four single conductors conduct electric power and communication signals.

Claims 2 and 4-10 are included in this rejection because of dependency.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 6, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hassel (5,444,184).

Hassel discloses an integrated communication and power system, comprising at least one first transformer located on shore, at least one second transformer located offshore (see abstract), at least four single conductors (Figures 4-5) connecting the first transformer with the second transformer, said conductors conducting electric power and communication signals, wherein the conductors are arranged in pairs which are galvanically insulated from each other conductors, and the communication signals being conducted in one conductor of at least one said pair. Specifically, Hassel discloses in the abstract, the communication signals being transmitted over at least two twisted pairs and at least two power conductors, each being constituted by one pair (re claim 1).

Hassel also discloses the at least four single conductors forming at least two pairs in a double single phase quad arrangement (re claim 2), the at least four single conductors being in a substantially fixed radial position relative to each other in a length of the cable (re claim 4), the second transformer having a plurality of secondary windings (re claim 6), the communication signals being conducted from one conductor in each of the pairs (re claim 9), and the at least four single

conductors being insulated copper lines and integrated into a subsea cable (re claim 10).

5. Claims 11, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Galipeau et al. (6,249,913).

Galipeau et al. discloses a power and communications system (Figure 2) comprising a plurality of single insulated conductors (42, 44, 46, 48, 50, 58, 60) being housed within a core and conducting power, at least one single insulated conductor (24, 26, 28, 30) being proximate the core and conducting communications.

The cable of Galipeau et al. can be a subsea cable and the first and the second ends of the conductors of Galipeau et al. can be connected between an onshore multi-winding load-balancing transformer and an offshore multi-winding load-balancing transformer respectively since the cable of Galipeau et al. comprises structure and material as claimed. In addition, it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

***Allowable Subject Matter***

6. Claims 5, 7, and 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
7. Claims 12-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or suggest a system comprising all the features as recited in the claims and in combination with filters being coupled to the first and second transformers (re claim 5), the plurality of secondary windings of the second transformer each having a filter (re claim 7), an offshore control unit being fed from the secondary windings (re claims 8 and 12), the onshore multi-winding load-balancing transformer comprising an onshore multi-phase primary winding and an onshore multi-phase secondary winding (re claim 13), the offshore multi-winding load-balancing transformer comprising an offshore multi-phase primary winding and a plurality of offshore single phase secondary windings (re claim 15).

***Response to Arguments***

9. Applicant's arguments with respect to claim 11 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 1, applicant argues that the present invention teaches away from the Hassel reference by using single conductor elements and not twisted pairs. This argument is not found persuasive because the claimed invention does teach that the single conductors are arranged in pairs. The fact that Hassel teaches the conductors being arranged in twisted pairs does not prevent Hassel from anticipating the claimed invention.

***Summary***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the

advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chau N Nguyen  
Primary Examiner  
Art Unit 2831